

PROCEDURE FOR APPLICATIONS INVOLVING ENGINEERED WOOD TRUSSES

CLARK COUNTY DEPARTMENT OF DEVELOPMENT SERVICES

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**PROCEDURE FOR APPLICATIONS INVOLVING
ENGINEERED WOOD TRUSSES
IN BUILDING DESIGN GUIDE**

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PROCEDURE FOR APPLICATIONS INVOLVING ENGINEERED WOOD TRUSSES IN BUILDING DESIGN GUIDE

This guide outlines the requirements for *applications involving the use of engineered wood trusses in building design*. The Clark County Department of Development Services requires wood truss engineering to be reviewed prior to issuance of permits and before construction can begin. Past practice for acceptance of wood trusses has been to defer submittal until verified solely by field inspection. This practice has not allowed sufficient time to remedy inconsistencies between the truss design and the structural design, which may have occurred before truss placement or, in some cases, the placement of sheathing and roofing materials.

I. TERMS AND DEFINITIONS

- A. **Engineered** - Items such as plans, calculations, and documents prepared by a Nevada registered engineer or design professional.
- B. **Wood Truss** - Unitary pre-fabricated floor or roof framing items.
- C. **Wood Truss Package** - Includes a truss placement plan, engineered truss design drawings, and engineered calculations.
- D. **Engineered Construction Method** - Structural frame of the building has been designed by an appropriately licensed design professional and is based on an engineered analysis of the structure.
- E. **Conventional Construction Method** - Prescriptive construction method for light-framed wood construction that does not require an engineering analysis. Uniform Building Code (UBC) Section 2320 allows this method to be used for limited applications.

II. SUBMITTAL AND REVIEW PROCEDURE

- A. An *engineered wood truss package* must be included with the submittal of required plans and documents as part of the application for a building permit.
- B. Trusses are typically pre-fabricated and engineered by registered engineers working for the fabricator. The building frame is typically designed by engineers or other design professionals, depending on the construction method selected.

III. SUBMITTAL PROCEDURE FOR ENGINEERED CONSTRUCTION METHOD

- A. To ensure that the *wood truss package* is complete, three (3) sets of the following documents shall be delivered to the licensed design professional of record for review:

1. _____ Final truss placement plans
 2. _____ Engineered, wet sealed truss design drawings and calculations
- B. The building designer shall review the truss design drawings, calculations, and placement plans for conformance with the construction design documents. Upon acceptance, the licensed design professional shall:
1. _____ Place a signed and dated “shop drawing review” stamp on the truss package; **OR**
 2. _____ Issue a signed letter of approval for a dated truss calculation package
- C. The items reviewed by the Building Plans Examination Division include:
1. _____ Nevada professional engineer’s seal, signature and date on the truss design drawings and calculations
 2. _____ “Shop drawing review” stamp or signed letter of approval from the licensed design professional of record on the project
 3. _____ Truss placement for general conformance to the submitted plans
 4. _____ Location of the truss bearing points for consistency with bearing walls, beams, headers, posts, etc.
 5. _____ Location and magnitude of concentrated gravity loads for consistency with the design documents
 6. _____ Location and magnitude of lateral/drag loads for consistency with the design documents
 7. _____ Verification that the fabricator is approved by Building Division, Inspection Services as a wood truss manufacturer

IV. SUBMITTAL PROCEDURE FOR CONVENTIONAL CONSTRUCTION METHOD

When the structure is not designed by a licensed design professional and the design utilizes conventional light-frame construction methods from the Uniform Building Code, Building Plans Examination staff will review the *engineered wood truss package* for the following items in addition to the normal plan review items:

1. _____ Nevada professional engineer’s seal, signature and date on the truss design drawings and calculations. A truss placement plan must also be provided.
2. _____ Truss placement for general conformance to the submitted plans

- 3._____ Location of the truss bearing points for consistency with bearing walls, beams, headers, posts, etc.
- 4._____ Top chord dead and live loads used in the design of the trusses
- 5._____ Bottom chord dead and live loads used in the design of the trusses
- 6._____ Location and magnitude of concentrated gravity loads imposed on trusses or framing
- 7._____ Verification that the fabricator is approved by the Building Inspection Division as a wood truss manufacturer
- 8._____ The *engineered wood truss package* will be stamped “approved” by Building Plans Examination staff and will be included with the building permit documents provided to Development Services Records.

V. SIGNIFICANT DESIGN CHANGES

When significant design changes occur after the review is completed and modifications to the trusses are made due to framing plan changes, the Building Plans Examination Division shall require submittal of revised plans, calculations, and truss design as appropriate.

VI. REPAIRS

When repairs or fixes are required, the applicant shall submit the appropriate documentation to Inspection Services. Inspection Services will forward copies to the construction site and the Development Services Records Office.

VII. CHANGE OF ENGINEER OR ENGINEERING OVERVIEW

When an engineer other than the original engineer prepares or modifies truss plans and calculations for final construction, a complete truss design package must be resubmitted with the new engineer’s stamp and signature. This submittal shall follow the procedures above and will be processed as a revision and assessed hourly fees as allowed in the Clark County Building Administrative Code.

REFERENCE INFORMATION

Department of Development Services - Locations & Services:

<p>RUSSELL/CAMERON OFFICE Building Division & Permit Application Center 4701 West Russell Road Las Vegas, NV 89118</p>	<p>CLARK COUNTY GOVERNMENT CENTER 500 S. Grand Central Parkway, First Floor P. O. Box 553530 Las Vegas, NV 89155-3530</p>
<ul style="list-style-type: none">• On-Site Building Plan Submittals• All "Walk-Through" Plan Review / Permitting Functions• Residential Tract Submittal / Permitting• All Sub-Trade (Electrical, Plumbing & Mechanical) Permitting• All On-Site Building-Related Plan Review• All Zoning Plan Review / Addressing• Building Inspection Scheduling Functions• Temporary Certificate of Occupancy Submittals• Building Inspection Penalty Fee Payment• Building Inspections• Building Inspector Inquiries• Amusement / Transportation Systems - Operation Certificates• Approved Fabricators• Quality Assurance Agency Listing	<ul style="list-style-type: none">• Civil & Land Use Applications / Plan Submittals• Civil Plan Reviews• Off-Site Permit Issue• Off-Site Inspection Scheduling / Inspections• Major / Special Projects• Map Reviews (Tentative & Final)• Public Records (Building, Civil & Land Use)• Traffic / Drainage Study Reviews• Administration• Technical / G.I.S. Services
<p>LAUGHLIN OFFICE Regional Government Center 101 Civic Way Laughlin, NV 89029 (702) 298-2436</p>	<p>NORTHEAST OFFICE 320 North Moapa Valley Blvd. Overton, NV 89040 (702) 397-8089</p>
<ul style="list-style-type: none">• Inspection Services• Inspector Inquiries	<ul style="list-style-type: none">• Application and Plan Submittal• Plan Review/Permit Issue• Sub Permit Issue• Inspection Services

The Department of Development Services, Building Division & PAC,
Telephone Number for local offices is:
(702) 455-3000

Please select the appropriate "option" number for each of the following areas:

Inspection Scheduling	Option "1"
Building Inspection Division	Option "2"
Permit Application & Submittal Requirements	Option "3"
Building Plans Examination	Option "4"
Zoning Plans Examination	Option "5"
Contractor Licensing Requirements	Option "6"
Records Office	Option "7"
Director's Office	Option "8"
Hours of Operation, Locations & Web Information	Option "9"

Please visit the Department of Development Services' Web site at
www.accessclarkcounty.com/development_services

Other Clark County Departments/Divisions/Districts:

• Air Quality & Environmental Mgmt.	500 S. Grand Central Pky.	(702) 455-5942
• Civil Engineering Division	500 S. Grand Central Pky.	(702) 455-4600
• Current Planning Division	500 S. Grand Central Pky.	(702) 455-4314
• Fire Department	575 E. Flamingo Road	(702) 455-7316
• Las Vegas Valley Water District	1001 S. Valley View Blvd.	(702) 870-2011
• Southern Nevada Health District	625 Shadow Lane	(702) 759-1000
• Water Reclamation District	5857 E. Flamingo Road	(702) 434-6600

State of Nevada:

• Division of Water Resources	400 Shadow Ln.. Ste 200	(702) 486-2770
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Utilities:

• Nevada Power	6226 W. Sahara Ave.	(702) 367-5000
• Southwest Gas	4300 W. Tropicana Ave.	(702) 365-1555

TT/TDD: Relay Nevada toll-free (800) 326-6868

Visit Clark County's Web site at:

www.accessclarkcounty.com